

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Robert L. Williams

GENERAL INFORMATION:

Name:	Carmeuse Lime & Stone, Inc Black River Operation
Address:	9043 Highway 154, Butler, Kentucky 41006
Date application received:	December 12, 1997
SIC/Source description:	3274 / Lime Production
EIS #:	21-191-00002
Application log number:	50254
AI number:	3400
Permit number:	V-05-003

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input checked="" type="checkbox"/> PSD	<input checked="" type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☒ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

#### EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM/PM <sub>10</sub>	9106.065 / 8581.074	9106.065 / 8581.074
SO <sub>2</sub>	3334.932	3334.932
NO <sub>x</sub>	2539.086	2539.086
CO	1228.590	1228.590
VOC	0.056	0.056
LEAD	0.097	0.097
HAP \$ 10 tpy (by CAS)		
HCl	278.568	278.568

#### SOURCE PROCESS DESCRIPTION:

Limestone is transported from the underground mine to the surface via conveyor belts. At the surface, the limestone is crushed, washed, and conveyed to various kiln feed piles depending on the size and quality of the stone.

Limestone which is too small to be calcined in the kilns gets conveyed to aggregate piles. This stone may also be screened to produce a more closely separated product. This material may then be loaded into trucks at the site or blended and fed into truck dump hoppers which convey the stone to the limestone barge loadout.

There are five kilns at the plant. All five kilns utilize the same basic feed and counter fuel feed process. For all kilns, stone is fed directly into the kiln at a controlled rate while fuel is fed into the opposite end. As calcination takes place, the limestone is converted to quick lime. The lime is cooled and screened and either transported directly to a storage bin or screened and deposited into several bins to await shipping. Particulate emissions from the kilns are controlled by baghouses. Lime kilns #4 and #5 are equipped with continuous opacity monitors.

Lime is transported to the hydrate plant via conveyor. The lime bins at the hydrate plant feed into another bin which discharges into a weigh feeder which supplies lime to the mixer. Water is added in the mixer to produce hydrate. This material is processed and stored in silos. From the silos, it is either loaded into trucks or transported to a bagging area where it is bagged and placed on pallets.

Lime may be fed from the bins to a mill where it is pulverized. The pulverized lime is transported pneumatically to a pulverized lime storage silo. From the silo, the material is loaded into trucks.

Coal is delivered to the plant by truck and barge and stored in separate silos. Material is fed by vibrating conveyors under the silos through a conveying system, to a storage bin for each kiln. From these bins, the material is conveyed to a pulverizer to process the fuel for burning.